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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.

EXAMINER	
ART UNIT	PAPER NUMBER
	19

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No	Applicant(s)
09/068,528	Koizumi et al.
Examiner	**Group Art Unit**
Manjunath N. Rao	1652

X Responsive to communication(s) filed on *Dec 26, 2000*

X This action is **FINAL.**

Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

X Claim(s) *1, 5, 8, and 15-20* is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

Claim(s) _____ is/are allowed.

X Claim(s) *1, 5, 8, and 15-20* is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

X Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

X All Some* None of the CERTIFIED copies of the priority documents have been

X received.

received in Application No. (Series Code/Serial Number) _____

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

X Information Disclosure Statement(s), PTO-1449, Paper No(s). *18*

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

1. Claims 1, 5, 8, 15-20 are still at issue and are present for examination.

2. Applicants' arguments filed on 12-26-2000, paper No. 17, have been fully considered and are deemed to be persuasive to overcome some of the rejections previously applied. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 17 in line 4 recites the phrase "at least one microorganism" which renders the claim indefinite. It is unclear to the Examiner as to what the applicants mean by this term. It is not clear whether applicants mean literally "one single bacterium" of a given species of bacteria or microorganisms or a culture of microorganisms of one single species.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 5, 8 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maruyama et al. (EP 0 553 821 B1, dated 3-19-1997) in view of Weissborn et al. (J. Bacteriol., 1994, Vol. 176:2611-2618). See previous Office action for rejection.

In response to the previous Office action, applicants have traversed the above rejection arguing that Maruyama et al. neither discloses nor suggests producing a sugar nucleotide from NTP and a sugar and that according to Weissborn et al., UDP-glucose is produced under optimum reaction conditions of the galU gene product using a glucose-1-phosphate which is a substrate thereof. Applicants also argue that in the process of Weissborn et al. UDP-glucose cannot be detected without using the labeled substrate and that even if UDP-glucose is produced using glucose as a substrate via glucose-1-phosphate, the production amount would be further decreased. The above arguments of the applicants is not persuasive to overcome the above rejection because applicants are arguing limitations that are not part of the claimed invention. Claim 1 for example, as now amended is directed to a process of producing a sugar nucleotide which comprises selecting as enzyme source such as culture broth of a microorganism capable of producing nucleoside-5'-triphosphate from a nucleotide precursor such as orotic acid (claim 5) and a culture broth of a microorganism having genes responsible for production of a sugar nucleotide from a sugar such as glucose-1-phosphate (claim 8) and NTP (UTP). Contrary to applicants argument Maruyama et al. does teach the production of a sugar nucleotide using orotic acid as a precursor using enzymes from a microorganism capable of producing nucleoside-5'-triphosphate from a nucleotide precursor such as orotic acid. Similarly Weissborn et al. does

teach the synthesis of UDP-glucose using the purified enzyme UTP:alpha-D-glucose-1-phosphate uridylyltransferase and applicants' argument that Weissborn et al. does not produce UDP-glucose from UTP and glucose is not persuasive as no claim is limited to exclude glucose-1-phosphate as sugar. Applicants argument that even if UDP-glucose is produced (by the method of Weissborn et al.) using glucose as a substrate via glucose-1-phosphate, the production amount would be further decreased is misplaced as the claimed invention is not limited to the amounts of sugar nucleotide that is synthesized. Applicants other arguments that various sugar nucleotides can be produced by their method with the production amounts in the order of several grams per liter, and that it is economical and excellent etc. are also not persuasive to overcome the above rejection as their claims are not drawn to those limitations and thereby rendered obvious by the above references. Therefore the above rejection is maintained.

Conclusion

6. No claims are allowed.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manjunath Rao whose telephone number is (703) 306-5681. The Examiner can normally be reached on M-F from 6:30 a.m. to 3:00 p.m. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, P.Achutamurthy, can be reached on (703) 308-3804. The fax number for Official Papers to Technology Center 1600 is (703) 305-3014.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Manjunath N. Rao

March 9, 2001

REBECCA E. PROUTY
PRIMARY EXAMINER
GROUP ~~1800~~ 1600